

LAND PROTECTION PLAN  
FOR  
PANTHER SWAMP NATIONAL WILDLIFE REFUGE  
YAZOO COUNTY, MISSISSIPPI

DEPARTMENT OF THE INTERIOR  
U.S. FISH AND WILDLIFE SERVICE  
SOUTHEAST REGION  
ATLANTA, GEORGIA  
FEBRUARY 1984

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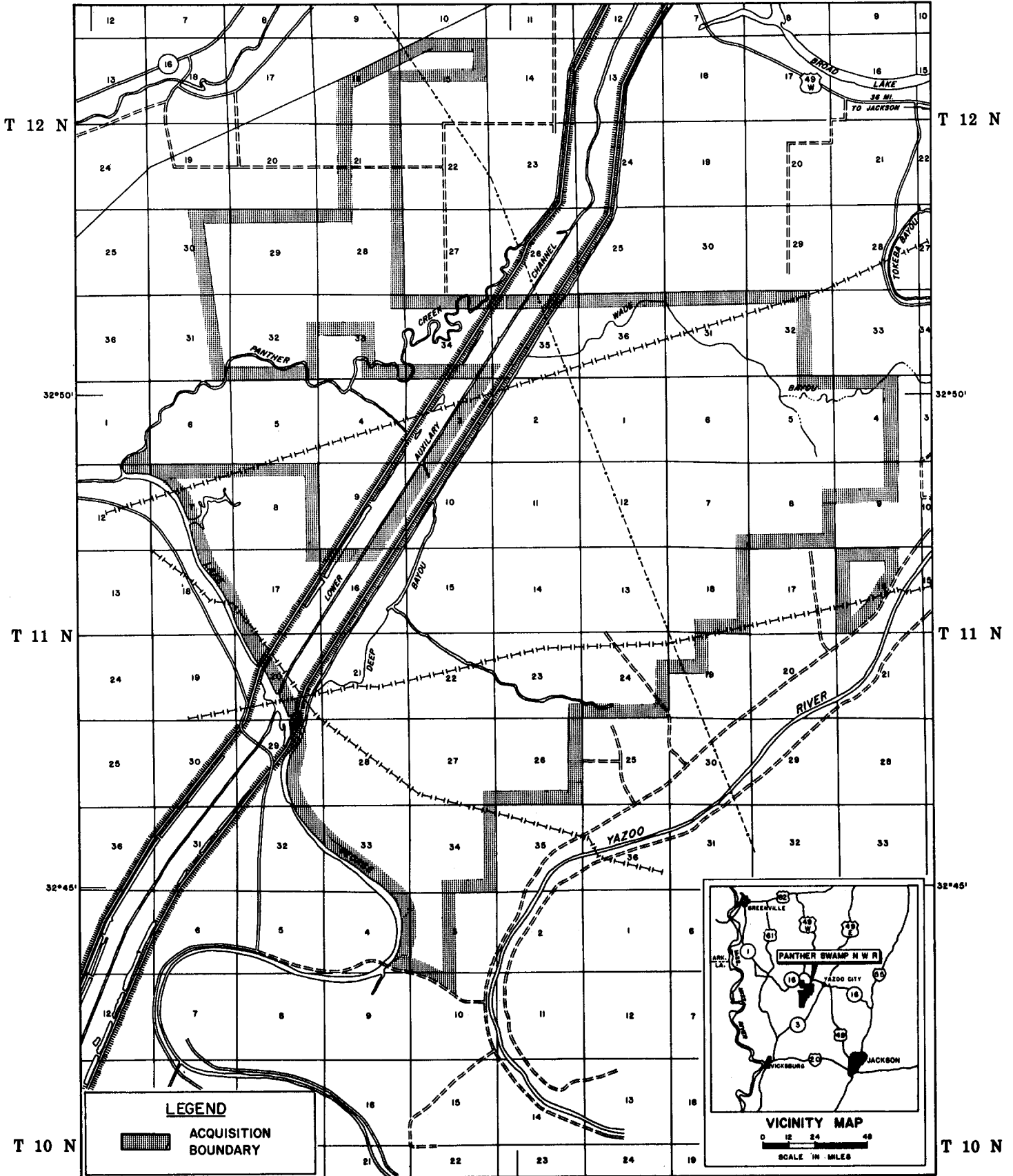
Figure 1.

# PANTHER SWAMP NATIONAL WILDLIFE REFUGE

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
R 5 W

YAZOO COUNTY, MISSISSIPPI  
R 4 W

UNITED STATES  
FISH AND WILDLIFE SERVICE  
R 3 W



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COMPILED IN THE DIVISION OF REALTY  
FROM SURVEYS BY U.S.G.S.

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CHOCTAW MERIDIAN

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TRUE NORTH  
MEAN DECLINATION  
1977

ATLANTA, GEORGIA

REVISED 4/80  
JUNE 1977

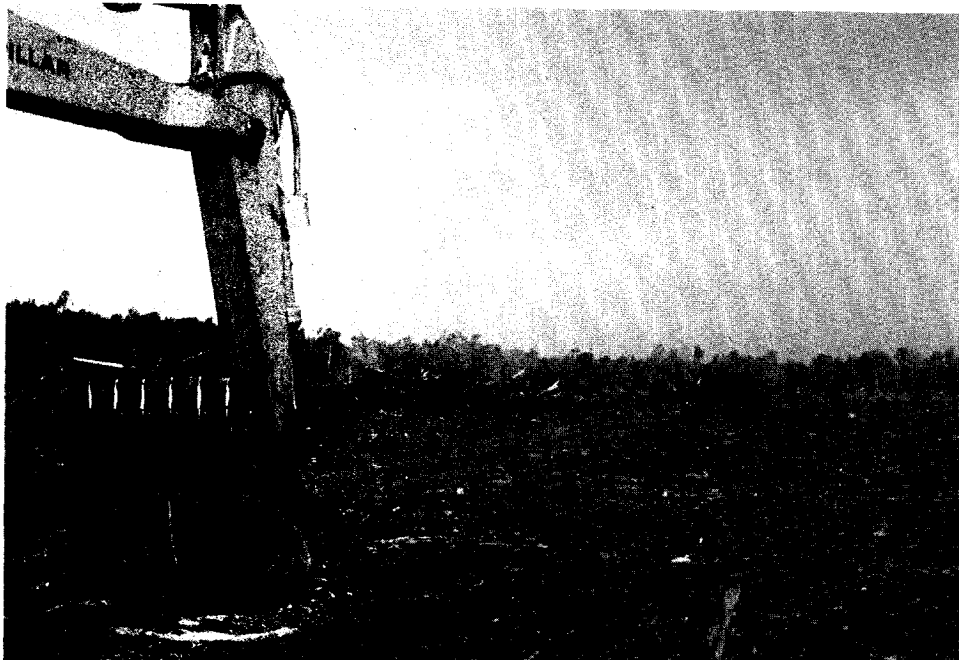
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LAND PROTECTION PLAN  
FOR  
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I. PROBLEM/NEED

A. Problems and Major Issues

The rich overflow bottomlands in western Mississippi once contained an estimated 24 million acres of forested wetlands. This figure had been reduced to 2 million acres by 1950, and 1.2 million by 1970. Delta hardwoods were further reduced by 60 percent between 1970 and 1976. It is estimated that less than 500,000 acres of forested wetlands still exist in the delta in Mississippi. Publicly owned woodlands in that area total about 110,000 acres and it is estimated that only this remnant of a once vast overflow forest will remain by the year 2000 unless preservation efforts are initiated.



Conversion of forests to farmland threatens bottomland hardwoods.

Panther Swamp National Wildlife Refuge (NWR) (Figure 1) was established in 1978 because of its value as a natural bottomland hardwood ecosystem which provides significant habitat for wintering migratory and resident waterfowl. Approximately 75 percent of the lands within the approved acquisition boundary has been acquired by the Fish and Wildlife Service (FWS) from willing sellers. (See Figure 2 in the pocket)

## B. Authorities

On September 20, 1977, the Migratory Bird Conservation Commission approved the acquisition and establishment of the NWR. Acquisition is authorized by the Migratory Bird Conservation Act of February 18, 1929 (45 Stat. 1222) as amended.

## II. PROGRAM OBJECTIVES

### A. Major Resources Values

#### 1. Wildlife

The diverse habitat on the NWR supports a wide variety of wildlife species. Historically, the refuge wetlands have supported as many as 100,000 wintering waterfowl. Mallard, wood duck, wigeon, green-winged teal, and gadwall are the most numerous waterfowl, but many other species such as pintail, hooded merganser, shoveler, and black duck are common and utilize the seasonally flooded bottomland hardwood forest and permanent water areas. The NWR also serves as an important area for wood duck production.



Mallards in Flooded Bottomland Hardwoods

The principal resident game species are gray squirrel, white-tailed deer, eastern wild turkey, and swamp and cottontail rabbits. Fur-bearing species include beaver, nutria, fox, raccoon, muskrat, mink, otter, weasel, spotted and striped skunks, and bobcat. Non-game wildlife is also abundant on the refuge. Mississippi State University listed 46 species of mammals, 168 species of birds, and 83 species of herpetofauna in the Yazoo River Backwater Area in their Environmental Inventory and Assessment of the Yazoo Pump Study.



Fox Squirrel

The endangered American alligator is found extensively in the Yazoo River Backwater Area, and considerable acreage of suitable habitat exists in Panther Swamp. In addition, the southern bald eagle and the American peregrine falcon, both endangered, are winter migrants of the Yazoo Basin and have been observed in the Panther Swamp area in recent years.

Sloughs, streams, beaver impoundments, and other refuge wetlands provide only a limited amount of fish habitat except during high water periods when concentrations of fish may be high in suitable areas. Species may include any of the fishes common to the Mississippi or Yazoo Rivers.



## 2. Habitat

Presently, there are 19,996 acres of FWS land within the NWR. Approximately 18,639 acres are in forestland (93 percent) and 1,357 in cleared land. Some of the forest acreage consists of sloughs, and beaver ponds.

The major habitat types found on lands to be protected in the NWR are: open water, shrub and wooded swamp, low floodplain, high floodplain, and cleared land.

### a. Open Water

This habitat type includes the natural lakes, old river cutoffs and creeks that occur on the NWR. The plant and animal growth occurring in the open water areas provides a food source and resting area that is particularly important for waterfowl during dry periods. Common vegetation includes pondweeds, coontail, watermilfoils, waterlilies, naiads, and water hyacinth. This habitat type is very important to breeding and wintering wood ducks.



Open Water Habitat

b. Shrub and Wooded Swamp

Shrub and wooded swamps are often used interchangeably by waterfowl for feeding, resting, and roosting purposes. As with open water, this type becomes very important to waterfowl during dry periods. Buttonbush and water elm are common vegetation in shrub swamps, and in wooded swamps, tupelo gum and bald cypress are dominant. Shrub and wooded swamps often support mats of duckweeds, smartweeds, and other aquatic vegetation important to wetland ecosystems.



Shrub Swamp Habitat

c. Low Floodplain

Low floodplains are seasonally submerged basins or flats that flood during low to moderate rainfalls. They occur in sloughs and low backwater basins and on low ridges that are subject to late spring inundation. Overcup oak, bitter pecan, American elm, green ash, and red maple are common tree species. This habitat type is important as feeding, resting, and roosting areas for mallards and wood ducks.



Low Floodplain



High Floodplain

d. High Floodplain

A slight increase in elevation from the low floodplain yields vegetative changes and results in this habitat type. Important mast producing trees such as willow oak, water oak, and Nuttall oak are predominant in the high floodplain. When flooded, waterfowl leave other feeding areas to consume the abundant mast crops produced in this habitat type.

e. Cleared Land

This type consists of agricultural land, moist soil management units, rights-of-way, and hardwood regeneration areas. When inundated these areas are utilized by waterfowl.



Hardwood seedlings being planted on cleared land.

B. National or Regional Objectives

The lower Mississippi River Delta is one of the most important wintering areas for mallards in the United States and probably exceeds all other similar areas in wood duck production. The seasonally flooded bottomland hardwoods and associated permanent water areas play a key role in sustaining continental waterfowl populations. This habitat is used extensively as a resting and feeding area and as a home base from which waterfowl range to other feeding areas. Aquatic food supplies are available in permanent water areas when ducks arrive, and additional food sources become available when the hardwood areas are flooded.

The NWR was established because of its value as a naturally occurring bottomland hardwood ecosystem which provides significant habitat for wintering migratory waterfowl. Naturally occurring wildlife, especially wintering waterfowl and endangered species, will be perpetuated and fish and wildlife oriented public use opportunities will be provided by the NWR.

Acquisition and management of the NWR is in concert with the National Waterfowl Management Plan and is in Category 7 of the FWS Migratory Bird Habitat Preservation Program. The NWR is the number 1 preservation priority of 25 bottomland hardwood areas identified in Mississippi by the Southeast Region.

### C. Project Objectives

Preservation of bottomland hardwood habitat in the lower Mississippi River Delta is a high priority objective of the FWS. The NWR represents this type of habitat and is extremely valuable because of its wintering waterfowl values. Therefore, the primary refuge objective at Panther Swamp is to protect and preserve the bottomland hardwood ecosystem. Approximately 18 percent of important bottomland hardwood habitat identified for preservation in Mississippi will be protected by the NWR.

The second refuge objective is to provide habitat and protection for wildlife with special emphasis on wintering waterfowl and endangered/threatened species.

The third refuge objective for the NWR is to provide wildlife-oriented public use opportunities consistent with policy, commitments, and current demand.

## III. RESOURCE PROTECTION ALTERNATIVES REVIEWED

The Secretary of the Interior is authorized to acquire land and interests in land by donation, purchase with donated or appropriated funds, or exchange.

Several alternatives are considered in arriving at the most appropriate method of protection that would allow for the most cost effective means of providing long-term protection of wildlife resources, while requiring only minimal development of facilities, and allowing public use. The alternatives reviewed are:

- No Action - Relying on existing Federal or State legislation or local zoning ordinances to protect the target resource.
- Acquisition/Management by Others
- Acquisition of Less-Than-Fee-Interest
- Acquisition of Fee Title

A. No Action

The FWS currently owns 19,996 acres at Panther Swamp. These lands are now protected and would continue to be so under the No Action alternative. However, the remaining 5,924 acres of private land within the approved acquisition boundary would be afforded very little if any protection under this alternative.

The Yazoo County School Board owns 1,135 acres of the private lands within the acquisition boundary (Tract 3,a,b). These lands are currently forested and leased to hunting clubs. As long as the School Board continues to classify these lands as forestlands they are afforded protection from clearing. However, it is a simple matter for school boards to change classifications and should the Yazoo County School Board so choose, their lands could be cleared and classified agricultural.

Section 404 of the Federal Water Pollution Control Act prohibits the deposition of dredged or fill material into wetlands. Drainage operations that would require ditching within the NWR could possibly be stopped by the Corps of Engineers. However, land clearing during dry periods with no ditching involved is not considered a violation of Section 404. Under the No Action alternative, Section 404 would not provide adequate resource protection for refuge inholdings. There are currently no state regulations or local ordinances which would protect the private inholdings at the NWR from land use change.

B. Acquisition/Management by Others

The only state agency that has an interest in protecting the NWR inholdings is the Mississippi Department of Wildlife Conservation (MDWC). The MDWC has been very supportive of the FWS acquisition efforts at Panther Swamp, however, they are not receptive to committing any of their limited acquisition funds to purchase the NWR inholdings.

No local government agency or private conservation organization has expressed any interest in the NWR inholdings. The FWS could possibly interest The Nature Conservancy (TNC) in a third party arrangement concerning some of the lands currently for sale; however, due to the existing commitments that the FWS has to TNC, this approach may not be feasible.

The purchase of private inholdings for duck hunting clubs is a possibility. One inholding, the Newman property, was purchased by a group of duck hunters and this inholding is compatible with the adjacent refuge lands. If the FWS could be assured that the inholdings currently for sale would be acquired by duck hunting clubs, or others who would not change the habitat type, the FWS would not need to initiate any near term protection efforts to preserve the bottom-

land hardwood habitat. However, a very small percentage of the bottomland hardwood land sales in the Mississippi Delta has been to duck clubs. Most sales have been to land speculators or agricultural interests and the land subsequently has been cleared.

The best possibility for acquisition by another agency is with the Corps of Engineers (COE). The COE has for the past few years been studying the feasibility of buying mitigation land in the Yazoo Basin. The FWS has on several occasions supplied Vicksburg District COE with information on private inholdings at the NWR. Should the COE receive the authorization and funding to acquire mitigation lands in the Yazoo Basin, the possibility for purchase of some of the NWR inholdings would seem good.

#### C. Less-Than-Fee Acquisition

The FWS recognizes that it is not necessary to own a fee title interest in all land in order to assure its protection and appropriate use. Therefore, conservation easements should be considered where public and private land uses are currently compatible with refuge purposes but an interest in property is needed to assure permanent protection from changes in use or to allow public access and resource management.

Easements constitute an interest in land in the form of a property right and are binding upon subsequent owners. Easements place development and use restrictions on the land to assure that private uses will remain compatible with the preservation and public use of the refuge. Easements may also convey rights of access or use. Right-of-way easements provide public or administrative uses of private property for specific purposes without acquiring fee title to the property. The acquisition of right-of-ways is generally for roads, trails, and utility corridors needed for refuge use and development.

Certain private lands within the NWR have economic uses that are compatible with refuge objectives. Leasing of lands for duck hunting, for example, is an economic use that would not be diminished by a non-development easement on the property. The landowner would continue to realize economic benefits from hunting while at the same time the refuge objective of preserving habitat would be accomplished. An easement would most likely be appropriate to protect and preserve Tract (18) since the owner has indicated he will continue using his property for private duck hunting.

Tracts (37R), (38R), (39R), and (40R) are corridors needed to provide public access to areas of the NWR that are presently inaccessible and therefore cannot realize their full public-use benefits. Right-of-way easements allowing public ingress and egress would provide an interest in these tracts assuring public use without acquiring fee title to the land.

The FWS may enter into management agreements with owners of private lands which would allow for public access and management or rehabilitation of habitat on real property not in Federal ownership. The FWS may also maintain and operate programs in connection with the agreement as appropriate. In addition, management agreements on privately owned land may be used as interim protection measures when funds are unavailable for acquisition or provide for exchange of services and financial assistance.

Management agreements may be applied where there is likely to be a continued operating relationship between the parties. They may be especially appropriate for properties within NWR boundaries owned by State and local governments. Tracts (3,a,b) are owned by the Yazoo County School Board (YCSB). Currently, land use on this property is compatible with NWR objectives; however, an agreement between FWS and YCSB would be desirable and provide a greater degree of protection than the "No Action" alternative.

#### D. Fee Acquisition

A fee title interest should be acquired where refuge resources require permanent protection not otherwise assured, where land is needed for visitor use development not provided through other means, and where proposed land use could adversely impact the refuge resources. Fee title transfers all rights of ownership, in this case to the Federal Government, and therefore, provides the best assurance of long-term resource protection and provides for visitor use development.

##### 1. Mineral Interests

There is potential for mineral exploration within the boundaries of the NWR. Mineral interests are those interests associated with extraction of oil, natural gas, or hard rock minerals. These interests may or may not be owned by the surface owner.

The exercising of subsurface mineral rights could significantly degrade the refuge environment. In view of the above, outstanding mineral interests which constitute a threat to the NWR may be acquired if other methods of protection (such as existing regulations) are found to be inadequate.

##### 2. Emergency Acquisition

It is the policy of the FWS to leave lands in private ownership unless there is an imminent threat of an incompatible change in land use. In these instances, the FWS will immediately attempt to acquire and pay just compensation for such land or interest in land. If this fails, approval will be requested for the filing of a Declaration of Taking in order to prevent resource damage.



### 3. Acquisition Methods and Conditions

Land and interests in land may be acquired in fee title for the NWR by several methods, which include exchange, purchase with contributed or appropriated funds, and donation.

Acquisition by exchange requires Federal properties identified for exchange to be of equal value, or provisions must be made for a cash payment to equalize the exchange. No lands in this project have as yet been identified for exchange purposes, and none of the landowners has expressed an interest in an exchange.

Owners of privately owned land may wish to donate land or interests in land for the tax benefits associated with such contributions. Donation will be discussed during negotiations to determine its feasibility.

Where land and interests in land is to be acquired by direct purchase, every effort will be made to reach an agreement on the purchase price with the owner. However, if an agreement cannot be reached, a complaint in condemnation may be filed in the Federal Court for establishment of the fair market value of the property. In addition, condemnation action may be utilized to overcome defects in title.

Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, entitles landowners, tenants, and others to certain payments, provided they are displaced by a Federal land acquisition program. The entitlements include housing differential, moving expenses, and other incidental expenses involved in selling a property and/or in relocation.

There are specific limits to the amount of relocation payments. These payments are in addition to the purchase price of the property and are not taxable under Federal tax laws. Public Law 91-646 describes the entitlements and prerequisites required to establish eligibility. Relocation advisory services will be provided to all persons displaced from the NWR by the acquisition of their property. Relocation will likely be minimal since none of the owners reside on their property year-round.

## IV. SUMMARY OF ALTERNATIVES

The impact of various protection alternatives on individual tracts is summarized in Table 1. A combination of alternative acquisition techniques appears to be the most cost-effective approach to protect habitat.

While the specific method of acquiring fee or less-than-fee interest will be negotiated on an individual basis, the primary means will be through fee title purchase and easement. Figure 2 (in the pocket) shows the location, and preferred method of acquisition of each tract.

TABLE 1. ALTERNATIVE IMPACT ANALYSIS BY TRACT

Tract No.	No Action	Acquisition/Management By Others	Less Than Fee Acquisition	Fee Acquisition
14a PT, 14c PT.	FWS would not honor a previous commitment to owner. Lands would probably be sold to private interests. Land clearing could result in destruction of valuable bottomland hardwood habitat.	Lands for sale but no other agencies currently in a position to acquire.	Owner interested only in fee simple sale.	FWS would exercise option in FY84. 2,480 acres of bottomland hardwood habitat would be protected.
37R, 38R, 39R, 40R	No public access on east, south & west side of refuge. Trespass problems will continue to exist.	N/A	Access easements would enable public to enter refuge at several points & reduce trespass on adjacent private lands.	N/A
13	Lands would probably be sold to private interests. Land clearing could result in destruction of valuable bottomland hardwood habitat.	Lands for sale. No other agency currently in a position to acquire.	Owner interested only in fee simple sale.	240 acres of bottomland hardwood habitat would be protected.
19	Lands could be sold to private interests. Land clearing could result. If lands are not sold, public access will continue to be prohibited along key access points.	Depending on when lands are placed on the market, the Corps of Engineers may be in a position to acquire for mitigation.	Owner only interested in obtaining a fee simple offer from FWS.	640 acres of bottomland hardwood habitat would be protected. Public access to refuge would be greatly improved.
18	Lands will continue to serve as a private duck hunting club unless hunting success or economic conditions change.	No agency currently interested in acquisition	Environmental easement would ensure preservation of lands should owner ever attempt a land use change.	Fee simple acquisition would ensure long-term protection of habitat and increased public use opportunities.
26	Land use change is inevitable resulting in further loss of bottomland hardwood forest.	Same as above	Same as above	Same as above
3,a,b	Near-term protection provided by virtue of current hunting leases on property.	Same as above	Same as above	Same as above
25	Land use change is inevitable resulting in loss of bottomland hardwood forest.	Same as above	Same as above	Same as above
24	Land use change is inevitable resulting in loss of bottomland hardwood forest.	Same as above	Same as above	Same as above
11	Land use change is inevitable resulting in loss of bottomland hardwood forest.	Same as above	Same as above	Same as above

## V. SOCIO-CULTURAL IMPACTS

The existence and function of a refuge cannot be separated from the neighboring land and community in which it exists. Refuge impacts on local economy, off-refuge developments, historic sites, and public use are discussed below to ascertain and examine potential benefits or problems which may arise.

### A. Impact on Economy and Off-Refuge Developments

Since essentially all lands surrounding the NWR have been cleared and converted to agricultural use, off-refuge development and economic land use will not be materially affected by Federal acquisition of NWR lands.

The respective county will receive annual Federal payments, subject to availability of funds, based upon either three-fourths of one percent of the adjusted land value or 25 percent of the receipts from the sale of refuge products, whichever is larger. Such payments are to alleviate the loss of local property taxes by the removal of federally acquired lands from the county tax roll. As forests become mature and are harvested on a sustained yield basis, revenue to the county from the sale of products should far exceed current tax payments.

### B. Impact on Aesthetic, Historical and Archaeological Values

The proposal is a preservation measure and in general should have no adverse impacts on existing aesthetic value. There are no known archaeological or historical sites within the NWR area. All proposed development sites will be thoroughly examined prior to development so that no archaeological value will be lost.

### C. Impact on Public Use

Existing public use in the NWR consists primarily of hunting. Fishing is restricted to portions of Panther Creek, Wade Creek, Deep Creek, borrow ditches, Lower Auxiliary Channel and Lake George.

Preservation of this habitat by public ownership will probably increase the number of use days of hunting or fishing because existing use is restricted to a large extent by hunting leases on the area. Under national wildlife refuge management, waterfowl hunting by the public may be permitted on up to 40 percent of the area; for other game species, up to 100 percent of the area may be opened to public hunting. The total number of hunter and fisherman days should increase and non-consumptive activities like wildlife observation and photography will be facilitated by the refuge.

#### D. Relocation

No permanent residences are located within the acquisition boundary, however, several hunting camps are present. Camp owners will be compensated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

The refuge vicinity is classified as a "depressed area" because of persistent unemployment resulting in poor social conditions of many residents. The project will result in additional employment opportunities during construction of facilities and after operation of the refuge begins. This will enhance social conditions in the area; however, the overall social beneficial effect can be classified as minimal. The project will have an insignificant effect on the population. Increased hardwood production and harvest will have an overall benefit to employment and increase the economy of the area. This will permit diversification and expansion of the economy to a minor degree. Establishment of Panther Swamp as a National Wildlife Refuge will preserve breeding, migration, and wintering habitat for waterfowl as well as other resident wildlife species. The refuge will provide opportunities for recreation, environmental education, and scientific research. These factors will continue to increase in importance as remaining hardwood areas are destroyed, converted to agriculture or otherwise lost. The most significant beneficial social effect will be realized by residents and non-residents who utilize the refuge for hunting, fishing, and other wildlife oriented activities.

### VI. COORDINATION

#### A. Local

A letter notifying landowners, congressmen, and other interested parties of Land Protection development was distributed in September 1983. Each landowner within the approved acquisition boundary was also personally contacted by a FWS representative during preparation of this Land Protection Plan.

#### B. State

State approval for the acquisition of the NWR was obtained on May 20, 1977, from Governor Charles C. Finch. There have been various contacts with the Mississippi Congressional delegation since 1977.

The FWS mailed an "Interdepartmental Notice of Proposed Action" (A-95) to the Mississippi State Clearing House and Central Mississippi Planning and Development District on May 25, 1977. This notice described the approximate boundaries of the NWR and the rationale for its establishment. Both agencies responded and indicated the refuge acquisition is consistent with State goals and policies.

## VII. FINDINGS AND RECOMMENDATIONS

### A. Existing Protection

Currently the FWS owns and protects 19,996 acres in the NWR. Of the remaining 5,924 acres within the approved acquisition boundary, 1,135 acres are owned by the Yazoo County School Board. These lands are classified as recreation lands and leased to private hunt clubs. As long as this situation exists, these lands are protected from land use change. However, a management agreement between FWS and the Yazoo County School Board is more desirable than "no action" and should be pursued.

### B. Protection Priorities

The criteria used to establish protection priorities for lands in the project area were:

1. Biological and ecological significance
2. Existing and potential threats
3. Significance of area to refuge management/administration
4. Existing commitments to purchase or protect land

Table 2 shows the analysis of tracts for priority assignment using the above criteria. Protection priorities and the preferred method of protection to be used for each tract are summarized in Table 3. A description of each tract and justification for its priority assignment follows:

TRACT (14a,  
PT.,14c.PT.) - The top priority for land protection at the NWR is to acquire in fee title the 2,480 acre McGraw-Curran Lumber Company property. This land contains some of the best waterfowl habitat within the Panther Swamp NWR acquisition boundary. The FWS has negotiated to acquire the property in FY 84.

TRACT (13) - The second priority is fee title acquisition of this tract which is currently owned by TNC. Cleared land borders this property on two sides. The threat of purchase and conversion to other incompatible uses could occur if FWS does not acquire this property.

TRACTS (37R) - Priorities 3 through 6 concern public access easements on  
(38R) (39R) land outside the acquisition boundary. A major management  
(40R) problem at the NWR is the limited amount of public access routes. Easements are proposed on the east, south and west sides of the refuge where public access routes are non-existent.

TABLE 2. ANALYSIS OF TRACTS FOR PRIORITY RANK

Tract No.	Biological Significance	Ranking Criteria			Priority Rank
		Threat To Resource	Existing Commitments	Management Significance	
3,a,b	Moderate	Low	N/A	Moderate	10
11	Moderate	Moderate	No	Low	13
13	High	High	Yes	High	2
14,a,c	High	High	Yes	High	1
18	High	Low	No	Moderate	8
19	High	Moderate	No	High	7
17 24	Moderate	Moderate	No	Low	12
25	Moderate	Moderate	No	Low	11
26	Moderate	Moderate	No	Low	9
37R	N/A	N/A	N/A	High	3
38R	N/A	N/A	N/A	High	4
39R	N/A	N/A	N/A	High	6
40R	N/A	N/A	N/A	High	5

TABLE 3

LAND PROTECTION PRIORITIES AND PROPOSED METHODS OF PROTECTION

The privately owned land within the NWR has been prioritized for preservation to facilitate the timely protection of those areas of most importance to wintering waterfowl.

The minimum interest necessary to protect the resource and meet refuge objectives has been determined by ownership. The tracts identified for fee title acquisition require Federal ownership either to ensure unified management of existing FWS ownership or to satisfy an existing agreement to purchase the property in fee title.

Priority	Tract No.	Acreage	Method of Protection (minimum interest)
1.	14a. Pt., 14c. Pt.	2,480.33	Fee title
2.	13	240	Fee title
3.	37R	5.8	Right-of-way easement
4.	38R	1.9	Right-of-way easement
5.	40R	3.1	Right-of-way easement
6.	39R	2.7	Right-of-way easement
7.	19	640	Fee title
8.	18	800	Environmental easement
9.	26	300	Fee title
10.	3,a,b	1,135	Management agreement
11.	25	25	Fee title
12.	24	30	Fee title
13.	11	260	Fee title

- TRACT (19) - Priority #7 will be to negotiate on the Stricklin property. This 640 acre parcel lies within the interior of the refuge. Acquisition of this area by the FWS would solve many public access problems and also bring additional waterfowl habitat under management.
- TRACT (18) - Priority #8 is acquisition of a non-development easement on the Newman property. This property was acquired for private duck hunting and is used extensively for this purpose. A conservation easement will provide long-term protection for this property from habitat alteration while permitting current land use to continue. This easement would prevent drainage and clearing of the property in the unlikely event that the duck hunting played out and the owners decided to convert the property to other uses.
- TRACT (26)(3, a,b)(25)(24) - The remainder of the private lands within the NWR are of lowest priority. Tracts (25) and (26) are wooded and provide good waterfowl habitat; they should be purchased in fee title. Tract (3,a,b) is owned by the Yazoo County School Board. A long-term management agreement between the County and FWS would adequately preserve this area. Tracts (11) and (24) are cleared and are of little biological value; fee title purchase of these two tracts would allow moist soil management and subsequent improvement in their value to waterfowl.

#### C. Methods of Protection

Table 3 lists each tract by designated priority along with the minimum interest that needs to be acquired by the FWS. (also see Figure 2 in pocket.) The following is a summary of the methods of protection to be used during acquisition of the NWR.

##### Summary of Protection Methods

<u>Proposed Method</u>	<u>Number of Tracts/Method</u>	<u>Acres/Method</u>
Fee Title	7	3,975.33
Management Agreement	1	1,135.00
Easement	5	813.50
	<u>13</u>	<u>5,923.83</u>
Existing FWS Ownership	-	19,996.00
	Total NWR Acreage	<u>25,919.83</u>

Note: Acreage figures are estimates subject to revision.

#### D. Excess Lands

No land is identified as excess to NWR needs to effectively preserve and manage the area.





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**U.S. FISH AND WILDLIFE SERVICE**

**CONSTRUCTION PROJECT WORKSHEET**      PAGE 1 OF 2

<b>STATION NAME</b> Panther Swamp NWR	<b>STATE</b> MS	<b>ORG. CODE</b> 43581	<b>DATE</b> 1/28/84
<b>PROJECT TITLE</b> Rehabilitate Cotten's Camp Access Bridge		<b>PACKAGE NO.</b>	<b>F.Y.</b> 86
<b>NEW CONSTRUCTION</b> <input type="checkbox"/> <b>REHABILITATION</b> <input checked="" type="checkbox"/>		<input checked="" type="checkbox"/> <b>NEW PROJECT</b> <input type="checkbox"/> <b>REVISION NO.</b>	

PROJECT DESCRIPTION
<p>Replace an old wooden access bridge (75'x12') over land side ditch near the old Cotten's Camp. Contract to have creosote pilings set and bridge constructed at increased elevation. Must be capable of supporting a medium D4E crawler tractor.</p>

PROJECT JUSTIFICATION	OUTPUTS (if needed)
<p>The Cotten's Camp bridge is necessary to allow public access to approximately 5,000 acres of Panther Swamp NWR. This bridge spans a ditch which parallels a Corps of Engineers flood control levee. Access across this bridge is also necessary for administrative and management purposes. The bridge is badly deteriorated and failure to replace it may result in tort claims.</p>	

REMARKS
<p>No permits will be required for this project, however, coordination with Vicksburg District, Corps of Engineers, will be necessary.</p>

FUNDS - DETAIL ON PAGE 2							
<p>(\$ = 1,000)</p> <table style="width: 100%;"> <tr> <td style="width: 60%;">DIRECT COSTS</td> <td style="text-align: right;">170</td> </tr> <tr> <td>INDIRECT COSTS</td> <td style="text-align: right;">46</td> </tr> <tr> <td>TOTAL PROJECT COSTS</td> <td style="text-align: right;">216</td> </tr> </table>	DIRECT COSTS	170	INDIRECT COSTS	46	TOTAL PROJECT COSTS	216	<p><b>DATE OF ESTIMATE</b>      <u>1/28/84</u>  <b>FOR CONSTRUCTION IN (YEAR)</b>      <u>FY 86</u>  <b>ESTIMATE VALID THRU (DATE)</b>      <u>10/86</u></p>
DIRECT COSTS	170						
INDIRECT COSTS	46						
TOTAL PROJECT COSTS	216						

## COST ESTIMATE

NO.	DIRECT COSTS	UNIT	UNIT COST	TOTAL UNITS	TOTAL COST
	Replace access bridge (75'x12'). Contract to have creosote pilings set and bridge constructed at increased elevation.	1	\$170,000	1	\$170,000
SUBTOTAL (DIRECT COSTS)					\$170,000
INDIRECT COSTS					
	CONTINGENCIES ( 10 %)				17,000
	ENGINEERING ( 15 %)				25,500
	ASSESSMENTS ( 2 %)				3,500
	CLEARANCES / STUDIES (SPECIFY):				
	OTHER (SPECIFY):				
SUBTOTAL (INDIRECT COSTS)					46,000
TOTAL COST					\$216,000

REGULATORY CLEARANCES		REQ'D	ACCOMP	INITIAL
COASTAL ZONE MANAGEMENT		<input type="checkbox"/>	<input type="checkbox"/>	
ECOLOGICAL SERVICES & SECTION 7 CONSULTATION		<input type="checkbox"/>	<input type="checkbox"/>	
OMB A-95 CLEARINGHOUSE		<input type="checkbox"/>	<input type="checkbox"/>	
CULTURAL RESOURCES		<input type="checkbox"/>	<input type="checkbox"/>	
CORPS SECTION 10		<input type="checkbox"/>	<input type="checkbox"/>	
CORPS SECTION 404		<input type="checkbox"/>	<input type="checkbox"/>	
NEPA CLEARANCE		<input type="checkbox"/>	<input type="checkbox"/>	
STATE & LOCAL PERMITS		<input type="checkbox"/>	<input type="checkbox"/>	
OTHER (SPECIFY)		<input type="checkbox"/>	<input type="checkbox"/>	
SUBMITTED (PROJECT LEADER)	DATE	REVIEWED (ENGINEERING)		DATE
<i>Kevin Chandler</i>	2/2/84	<i>[Signature]</i>		2/3/84
REVIEWED (ZONE MANAGER)	DATE	APPROVED (ARD)		DATE
<i>Sam O. Drake Jr.</i>	2/3/84			

# REFUGES AND WILDLIFE

From: \_\_\_\_\_

AUG 12 1987

\_\_\_\_\_  
Date Received

\_\_\_\_\_  
Date Due

- ☐ Information  
☐ Initial  
☐ Signature

- ☐ Please Handle  
☐ Prepare Reply

Remarks: Sam- If this confuses  
you, see me. We had a flap  
over this with Washington  
Office of Eng. a couple of weeks  
ago. Phil.

___ BENSON	___ LUBBEN	___ VITS
___ Davis	___ Impellitteri	___ Reid
<u>1</u> <del>___ MORGAN</del> <u>m</u>	<u>3</u> ___ Phillips	___ J. Ray
___ ADAMS	___ R. Ray	___ Jennings
___ Flournoy	___ Grissom	___ Lehr
<u>2</u> <del>___ DRAKE</del> <u>DR</u>	___ CELLA	___ Stockie
___ OBERHEU	___ Wages	___ Paulson
___ Gibson	___ Rumanes	___ Secretary
	___ Receptionist	___ CHARETTE
___ MCDANIEL	___ BUTTS	___ Catherine
___ GRABILL	___ Chitwood	___ Carlson
___ Bishop	___ Mattison	___ Flaaten
	___ P. Podriznik	___ Repoff
___ BOWERS	___ Donahoe	___ Jones
___ Poitevint	___ Markwitz	___ Teasley
___ Danner	___ Lawal	___ Willhite
___ Nelson	___ Andrews	___ Yount
	___ Copeland	___ Bender
___ F. PODRIZNIK	___ BONSACK	___ Dinkle
___ O'Neal	___ Tansill	___ Geldbaugh
___ Youngblood	___ Secretary	___ Underwood
___ Winkler		___ Powell
___ Robison		___ Mulville
	___ GOODALE	___ Brooks
	___ Anderson	___ Reese
	___ Lord	___ Clerk-Typist

## U.S. FISH AND WILDLIFE SERVICE

## ROUTING SLIP

ROUTING ORDER	INDICATE ROUTING ORDER BY NUMBER		ROUTING ORDER	STRIKE OUT OFFICE WHEN CLEARED	
	OFFICE	MAIL STOP		OFFICE	MAIL STOP
	REGIONAL DIRECTOR (RD)	1200		ARD-FISHERIES (AF)	1364
	DEPUTY REGIONAL DIRECTOR (DRD)	1200			
	SPECIAL ASSISTANT TO THE DEPUTY REGIONAL DIRECTOR (ADRD)	1200		ARD-FISH & WILDLIFE ENHANCEMENT (AWE)	1276
	ARD-PUBLIC AFFAIRS (APA)	1246		ARD-LAW ENFORCEMENT (ALE)	1218
	ARD-HUMAN RESOURCES (AHR)	1252	✓	ARD-REFUGES AND WILDLIFE (ARW)	1240
				REALTY (RE)	1283
	ARD-BUDGET AND ADMINISTRATION (ABA)	1202			
	BUDGET AND FINANCE (BF)	1202			
	PERSONNEL (PM)	1208			
	CONTRACTING & GENERAL SERV (CGS)	1264			
	ENERGY MANAGER (NRG)	1264			
	ENGINEERING (EN)	1376			
	ADP COORDINATION (ADP)	1376			
	SAFETY (SA)	1360			

THE MAIL STOPS LISTED ABOVE ARE FOR MAIL DESIGNATED ONLY TO THE IMMEDIATE OFFICE.

THE ATTACHED COMMUNICATION HAS A DUE DATE OR DEADLINE OF \_\_\_\_\_.

PLEASE CALL \_\_\_\_\_ ON \_\_\_\_\_ FOR PICKUP.

REMARKS:

FROM <i>EN</i>	OFFICE	TELEPHONE NO. <i>5479</i>	DATE
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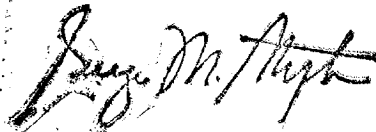
August 7, 1987

Chief, Division of Engineering, FWS, Atlanta, GA (EN)

Panther Swamp NWR Cotten's Camp Bridge

Chief, Division of Engineering, FWS, Washington, DC (DEN)

Attached are three copies of the revised Advance Planning Project brochure and Construction Project Worksheet on the Cotten's Camp Bridge project. The cost estimates of both documents have been revised to reflect the \$304,000 total cost figure for FY'89 construction.



George M. Stephens

Attachments

CPW (3)

APP (3)

STEPHENS:vpf 8/7/87

STATION NAME Panther Swamp NWR	STATE MS	COUNTY Yazoo Co.	CONG DIST	ORG. CODE 43581	DATE	F. Y. 89
PROJECT TITLE: Rehabilitate Cotten's Camp Access Bridge			CONSTR[ ] MAINT.[ ]	PROJECT NO.	YR. FUND	YR. COMPL

Check those that apply: New Construction ☐      If Maintenance: ☐  
 Rehabilitation ☒ Contract ☐ Force Account ☐ ☐ under 5K ☐ 5K-60K  
☐ New Project ☐ Revision No. 1 Priority No.        ADP Code ☐

\*\*\*\*\*

Project Description

Replace an old wooden access bridge (100'x16') over land side ditch near the old Cotten's Camp. Contract to have creosote pilings set and bridge constructed at increased elevation. Must be capable of supporting a medium D4E crawler tractor.

*****	
<u>Project Justification</u>	<u>Outputs if Needed</u>
The Cotten's Camp bridge is necessary to allow public access to approximately 5,000 acres of Panther Swamp NWR. This bridge spans a ditch which parallels a Corps of Engineers flood control levee. Access across this bridge is also necessary for administrative and management purposes. The bridge is badly deteriorated and failure to replace it may result in tort claims.	
*****	*****
<u>Remarks:</u>	

No permits will be required for this project; however, coordination with Vicksburg District, Corps of Engineers, will be necessary.

\*\*\*\*\*

Funds - Details on Page 2

(Dollars in Thousands)		Date of Estimate	08/03/87
Direct Costs	\$ 192.	For Construction in FY	89
Indirect Costs	\$ 112.	Estimate Valid Thru (DT)	10/89
Total Project Costs	\$ 304.		

Project Title:	Org. Code	Project No.	Date	Page 2 of 2
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Cost Estimate

No.	RPI No.	PROP. No.	Direct Costs (\$ x 1,000)	Unit	Unit Cost	Total Units	Total Cost
1.			Replace access bridge (100'x16'). Contract to have creosote pilings set and bridge constructed at increased elevation	1	\$192,000		\$ 192.

Subtotal (Direct Cost) \$ 192.

Indirect Costs

Contingencies (%) 15	\$ 28.
Engineering (%) 37 + 5% remoteness	\$ 80.
Assessments (%) 2	\$ 4.
Clearances/Studies (specify):	\$
Other (specify):	\$
Subtotal (Indirect Costs)	\$ 112.
TOTAL COSTS	\$ 304.

Regulatory Clearances	Req'd	Accomp.	Initial
Coastal Zone Management	[ ]	[ ]	
Ecological Services & Section 7 Consultation	[ ]	[ ]	
OMB A-95 Clearinghouse	[ ]	[ ]	
Cultural Resources	[ ]	[ ]	
Corps Section 10	[ ]	[ ]	
Corps Section 404	[ ]	[ ]	
NEPA Clearance	[ ]	[ ]	
State & Local Permits	[ ]	[ ]	
Other (specify)	[ ]	[ ]	

Submitted (Project Leader)	Date	Reviewed (Engineering)	Date
<i>Jim M. Wilkins</i>	8-3-87	<i>SM Hopkins</i>	8/3/87
Reviewed (District Supervisor)	Date	Approved (ARD)	Date
<i>Sam O. Drake, Jr.</i>	8-6-87	<i>NW Benson</i>	8/6/87





## memorandum

DATE: April 28, 1988

REPLY TO  
ATTN OF: Civil Engineer, Division of Engineering, FWS, Atlanta, GA (EN)

SUBJECT: RES No. 88-45 - Farm Bill Supplies (Off Refuge F/A Work)

TO: ARD, Refuges and Wildlife, FWS, Atlanta, GA (AWR)

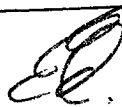
We have reviewed the subject RES and from the standpoint of stockpiling material for future construction we have no problem with it. We do, however, offer the following for your consideration:

1. Under normal conditions we usually call for the culvert pipe to be galvanized prior to coating and call out the type, kind and thickness of the polymer coating. There is a wide diversity in price and quality. We need to know that all vendors are bidding on the same material.
2. We noticed that 30', 36' and 40' lengths of culvert are called for in the requisition. The use of long lengths of culvert is satisfactory, if one is sure of the exact lengths necessary, but it gives no flexibility for changing conditions. In addition, it is doubtful that the Refuge has the equipment to handle a piece of 60" x 40' 10GA steel culvert pipe. At the very least, we should call for handling eyes to be welded to the pipe.
3. We notices that Items 11, 12, and 13 do not call for polymer coating. It would appear that if polymer coating is justified for the culver, some type of coating should be required for the risers.

We have prepared a standard "strip specification" we have used in the past for culvert pipe supply for your use, if you or contracting so desire.

You should be aware that our participation in the acquisition of construction material for various and sundry projects does not constitute engineering approval for the specific project. We suggest that prior to the commencement of work on moist soil projects or work under the FmHA that we be informed as to the scope and intent of the project segments. In no way do we consider the installation of 60" steel culvert pipe to be within the definition of "low level moist soil" work or work under the Farm Bill, as we understand it.

If Tim is to do all of this work with his own crew around the Yazoo Refuge, he is going to be a very busy individual and we will be ready to help him in any way we can. We will be glad to take SCS's certification that the project is feasible and, is well designed using good engineering practices. Their certification will reduce the amount of Regional engineering required for the work under this program.



W.E. Organ

CC:  
DARD, Refuges and Wildlife, Atlanta, GA

REPLY TO  
ATTN OF:

**TO:** Mr. J. Edgar Hoover, Director, Federal Bureau of Investigation



OPTIONAL FORM NO. 10  
(REV. 7-76)  
GSA FPMR (41 CFR) 101-11.6  
5010-112



These studies cover reinforcement projects, most of which can be improved by well defined still. These projects will, naturally, require more and more materials, especially pipes and water supply equipment. The other, undoubtedly, be asked for reinforcement and reinforcement. This requires certainly either an improvement or an improvement for most soil development and maintenance. And, of course, that following completion of these projects, the response of the waterfowl will be very different.

#### Example 1: River

- a)  $\Delta H = \frac{1}{2} \rho g \Delta z \left( \frac{V}{V_0} - 1 \right)$
- b)  $\Delta H = \frac{1}{2} \rho g \Delta z \left( \frac{V}{V_0} - 1 \right)$
- c)  $\Delta H = \frac{1}{2} \rho g \Delta z \left( \frac{V}{V_0} - 1 \right)$
- d)  $\Delta H = \frac{1}{2} \rho g \Delta z \left( \frac{V}{V_0} - 1 \right)$

$$\Delta H = \frac{1}{2} \rho g \Delta z \left( \frac{V}{V_0} - 1 \right)$$

December 22, 1987

Mechanical Engineer, Division of Engineering, FWS, Atlanta, GA (EN)

Yazoo NWR - Contract No. 14-16-0004-87-085, Headquarters  
Potable Water System and Moist Soil Water Supply Wells

Contract Specialist, Contracting and General Services, FWS,  
Atlanta, GA (CGS)

We have reviewed the letter to you from Lambert Drilling and Contracting Co., requesting a 30-day extension of the above mentioned contract. We are aware of his difficulties since we have spoken with the Contractor and/or the construction representative several times during the past month.

We feel these difficulties were not avoidable and therefore recommend the requested extension be granted.

We have also reviewed the letter to you from Timothy M. Wilkins, Refuge Manager, requesting the existing submersible pump be replaced with a new submersible pump as specified in Subdivision 02730, Paragraph 2.01-B.1 through B.5. This item was bid with the original bid under "Alternate Unit Prices for Item No. 1" in the amount of \$1,430.00.

We request that this amount be added to the original contract.

**/s/ Alfred V. Rogers**

Alfred V. Rogers, P.E.

CONCUR: \_\_\_\_\_  
Refuge Division Supervisor

ROGERS:vpf 12/21/87

✓ Alfred V. Rogers

## memorandum

DATE: December 10, 1987

REPLY TO  
ATTN OF: Refuge Manager, Yazoo National Wildlife Refuge

SUBJECT: Pump For Domestic Water Well

TO: Contracting and General Services, FWS, Atlanta, GA

*PS*  
*12/16/87*

Re: Contract #14-16-0004-87-085

This is to request that a new pump be used in the domestic water well. Part 2.01, paragraph A of the contract states, in part, that "The existing submersible pump be reused if the inspection shows it to be suitable ..." Considering that the existing pump is several years old, and considering that a lot of sand has been pumped through it recently causing premature wear, I feel that it is best to install a new pump in the new well.

*\$1430.00 quoted with  
the Bid.*

*Tim Wilkins*  
Timothy M. Wilkins  
Refuge Manager

*Al is out today 12/16/87*

RECEIVED

DEC 15 1987

Contract #14-16-0004-87-085  
14-16-0004-87-085

*Copy to EW 12-18-87*



Lambert Drilling & Contracting  
Route 2 Box 203  
Greenville, Mississippi 38701

Yvonne Hubbard  
U.S. Fish & Wildlife Service  
75 Spring Street, S.W.  
Atlanta, Georgia 30303  
ATTEN: Yvonne Hubbard

Dear Sir:

This is a request for a thirty day extension on Invitation No. FWS-4-87-43 covering the drilling and development of a potable well and one irrigation well at Yazoo National Wildlife Refuge, Hollandale, Mississippi.

Due to the obstacle of a log and a cavity in the ground, we had to seal off and move to another location and drill a second hole.

Another drilling machine had to be brought in to drill the second hole because of a broken mud pump shaft.

Due to this time lost, we request a thirty day extension.

Sincerely,

*Don K. Lambert*

Don K. Lambert  
Lambert Drilling & Contracting

DEC 14 1987